

**IN THE CLAIMS:**

Please amend the claims as follows:

1-25. (Cancelled)

26. (Previously Presented) A capsule, comprising:  
an envelope having a diameter of less than 100  $\mu\text{m}$ , and  
the envelope comprising at least three polyelectrolyte layers, with at least one of  
these three polyelectrolyte layers being labeled with at least one dye.

27. (Currently Amended) The capsule as claimed in claim 26, wherein two of the  
three polyelectrolyte layers are ~~in each case~~ not labeled with different dyes, with the two  
polyelectrolyte layers which are not labeled with the different dyes being separated from  
each other by at least the third polyelectrolyte layer which is ~~not~~ labeled with dyes the at  
least one dye.

28. (Currently Amended) The capsule as claimed in claim 27, wherein the third  
polyelectrolyte layer, which is ~~not~~ labeled with dyes, has a thickness of between 0.1 nm  
and 10 nm.

29. (Currently Amended) The capsule as claimed in claim 28, wherein the third  
polyelectrolyte layer, which is ~~not~~ labeled with dyes the at least one dye, is a sensitive  
layer which either swells or shrinks, with its thickness thereby being altered, when its  
environmental conditions change.

30. (Previously Presented) The capsule as claimed in claim 29, wherein the  
environmental conditions are pH, salt concentration, and temperature.

31. (Currently Amended) The capsule as claimed in claim 27, wherein the ~~different  
dyes~~ at least one dye are a dye of higher absorption energy (donor) and a dye of lower

absorption energy (acceptor).

32. (Currently Amended) The capsule as claimed in claim 31, wherein the different dyes at least one dye are coordinated with each other such that it is possible for a Förster (fluorescence) resonance energy transfer (FRET) to take place between the different dyes.

33. (Previously Presented) The capsule as claimed in claim 27, wherein additional polyelectrolyte layers, which are not labeled with dyes, are located between the polyelectrolyte layers which are labeled with the different dyes.

34. (Previously Presented) The capsule as claimed in claim 29, wherein the sensitive layer is an organic polyelectrolyte layer.

35. (Previously Presented) The capsule as claimed in claim 26, wherein the dye is covalently linked, at high concentration, to a sensitive material.

36. (Currently Amended) The capsule as claimed in claim ~~[[35]]~~ 29, wherein the sensitive material is a material which either swells or shrinks, with its volume thereby being altered, when its environmental conditions change.

37. (Previously Presented) The capsule as claimed in claim 36, wherein the environmental conditions are pH, salt concentration, and temperature.

38. (Currently Amended) The capsule as claimed in claim ~~[[35]]~~ 26, wherein the concentration of the at least one dye is so high that the dye forms dimers, aggregates or excimers with itself, which latter lead to self-quenching of the fluorescence or to the formation of a new emission band.

39. (Currently Amended) The capsule as claimed in claim ~~[[35]]~~ 26, wherein the concentration of the at least one dye satisfies the relationship mass of sensitive

material:mass of dye < 500:1.

40. (Currently Amended) The capsule as claimed in claim [[35]] 26, wherein the at least one dye-labeled layer has a thickness of from 1 nm to 1  $\mu$ m.

41. (Currently Amended) The capsule as claimed in claim [[35]] 26, wherein the polyelectrolyte layer which is labeled with at least one dye ~~dyes~~ is an organic polyelectrolyte layer which is labeled with ~~dyes~~ at least one dye.

42. (Currently Amended) The capsule as claimed in claim 26, wherein the ~~dyes~~ at least one dye is selected from are fluorescent dyes or emitting nanoparticles.

43. (Previously Presented) The capsule as claimed in claim 26, wherein the capsule is hollow and macromolecules are located within the internal space which is delimited by the envelope.

44. (Previously Presented) The capsule as claimed in claim 26, wherein the envelope is permeable to molecules of up to a given size.

45. (Previously Presented) The capsule as claimed in claim 26, wherein the capsule possesses a solid core which is surrounded by the envelope.

46. (Previously Presented) The capsule as claimed in claim 26, wherein the capsule has an average diameter of less than 10  $\mu$ m.

47. (Previously Presented) The capsule as claimed in claim 26, wherein the capsule is prepared by the layer-by-layer method.

48. (Previously Presented) The capsule as claimed in claim 26, wherein the capsule is used for labeling or coding industrial products, particles, cells, tissues, organs or organisms of biological origin.

49. (Previously Presented) A composition for identifying or labeling substances, comprising at least two types of different capsules as claimed in claim 1.

50. (Previously Presented) The composition as claimed in claim 49, comprising at least three types of different capsules as claimed in claim 1.